



National Weather Service

Storm Data and Unusual Weather Phenomena



August 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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SOUTH DAKOTA, West

Meade County 3 SE Piedmont	06	1905MST 1912MST			0	0			Thunderstorm Wind (G61)
Meade County 9 E Piedmont	06	1915MST			0	0			Hail (1.00)
Meade County Ellsworth Afb	06	1918MST 1930MST			0	0			Thunderstorm Wind (G77)
Pennington County Boxelder	06	1920MST 1930MST			0	0			Thunderstorm Wind (G65)
Meade County Ellsworth Afb	06	1925MST			0	0			Thunderstorm Wind (G99)
Measured on the northwest runway wind sensor.									
Meade County Ellsworth Afb	06	1929MST			0	0			Thunderstorm Wind (G99)
Measured on the southeast runway wind sensor.									

The first report of high winds was southeast of Piedmont with gusts of 65 to 70 mph estimated by a National Weather Service employee. Damage in that area included several downed trees and levelled gardens. As the storm moved east, large hail was reported. The first wind gust at Ellsworth AFB was 89 mph at 1918 MST on the northwest end of the runway. By 1925 MST, sustained winds were over 50 mph for nearly 10 minutes and the peak gust was 114 mph. The sensor on the southeast end of the runway, 2.5 miles away, recorded a wind gust of 114 mph at 1929 MST. The damage on the base included several large trees blown over and snapped in half and roof damage to base housing units. A few tents set up on the taxiways for an air show were blown around, but not significantly damaged. A survey by base meteorologists indicated the main downburst winds hit over open prairie surrounding the runway, where there are no trees or structures. Also between 1920 and 1930 MST, a meteorology student estimated winds between 70 and 80 mph at Box Elder, where gardens were levelled and wooden fences and roofs were damaged.

Custer County Central Portion	07	1201MST 1400MST			0	0	115K		Flash Flood
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Nearly stationary thunderstorms produced from 3 to 7 inches of rainfall in the French Creek basin. This water inundated French Creek which flows through Custer and considerable damage occurred to county roads and portions of the city of Custer. Over one dozen evacuations were ordered. One major result of the flooding was the contamination of the waste treatment plant which took in 2.9 million gallons of water in 48 hours, and it can normally handle just 500,000 gallons of water a day. The newly completed city baseball park was also completely flooded. Between the city of Custer and the state highway department, damage estimates to streets, bridges, highways and buildings was approximately \$115,000. There has been no estimate so far of damages to private property, but numerous homes had up to 3 to 4 inches of water in their basements.

Lawrence County Cheyenne Crossing	11	1255MST			0	0			Hail (0.88)
Lawrence County 4 SW Lead	11	1303MST			0	0			Hail (0.88)
Lawrence County 5 SW Nemo	11	1355MST 1420MST			0	0			Hail (1.00)

Hail was in drifted up to a foot deep along portions of Highway 385.



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<u>SOUTH DAKOTA, West</u>									
Pennington County									
2 NE Silver City	11	1403MST 1407MST			0	0			Hail (0.88)
Pennington County									
3 SW Onhson Siding	11	1427MST			0	0			Hail (1.00)
Pennington County									
Onhson Siding	11	1435MST			0	0			Hail (0.75)
Pennington County									
5 SW Rapid City	11	1503MST 1509MST			0	0			Hail (1.00)
Harding County									
5 NW Buffalo	11	1915MST			0	0			Hail (1.50)
Todd County									
Parmelee	11	1957MST			0	1			Lightning
A 32 year old man was paralyzed by lightning when lightning struck the screen door in front of him. He was knocked to the ground and witnesses say that he was indirectly hit by the lightning strike. Paramedics on scene noted that there were no entrance or exit wounds. He was transported to Rapid City for medical care.									
Perkins County									
Lemmon	11	2020MST			0	0			Hail (1.50)
Perkins County									
Lemmon	11	2030MST			0	0			Hail (1.75)
Perkins County									
19 SW Lemmon to 1 NE Lemmon	11	2030MST			0	0	500K	1M	Thunderstorm Wind (G70)
A combination of large hail and high winds in northern Perkins county resulted in nearly total losses in crops, and significant damage to vehicles and buildings in the Lemmon area. Newspaper reports stated golfball sized hail fell for 45 minutes in the southwest portion of Lemmon. The Perkins County Agricultural Extension Agent estimated around 25,000 acres of corn, sunflowers, small grain and rangeland were damaged to the point where they were considered total losses. He also estimated winds of around 80 mph in the Lemmon areas. 5 to 6 inches of rain also fell, which caused minor flooding problems in about 5 percent of the homes and businesses in Lemmon. Over 600 insurance claims have been filed so far and losses may total over 1.5 million dollars according to several insurance agency reports.									
Lawrence County									
8 W Spearfish	11	2105MST			0	0			Hail (0.75)
Butte County									
4 S Belle Fourche	11	2123MST			0	0			Hail (1.00)
Perkins County									
8 NNW Uata	11	2300MST			0	0	1K		Thunderstorm Wind
Several large trees were blown over on ranch property of a cooperative observer.									
Tripp County									
Ideal	20	1605MST 1610MST			0	0			Hail (0.75)
Pennington County									
Hisega	21	1220MST			0	0			Hail (1.00)
Butte County									
Vale	27	1252MST			0	0			Thunderstorm Wind (G57)
The doors were blown off a shed.									



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					Killed	Injured	Property Crops	

SOUTH DAKOTA, West

Jackson County 6 E Kadoka	27	1330MST			0	0		Thunderstorm Wind (G52)
Lawrence County Deadwood	29	1206MST			0	0		Hail (0.75)
Lawrence County 2 N Deadwood	29	1225MST 1245MST			0	0		Hail (1.00)
Lawrence County 5 SE Deadwood	29	1245MST			0	0		Hail (0.88)
Jackson County Interior	29	1615MST			0	0		Hail (1.75)
Jackson County Interior	29	1615MST			0	0		Thunderstorm Wind (G52)
Jackson County 1 N Wanblee	29	1705MST			0	0		Hail (0.75)
Jackson County Wanblee	29	1712MST 1722MST			0	0		Hail (1.00)
Jackson County Longvalley	29	1750MST			0	0		Hail (1.75)
Mellette County Norris	29	1825MST			0	0		Hail (1.00)
Tripp County 3 SW Ideal	29	2240MST			0	0		Hail (1.75)

WYOMING, Northeast

Crook County 5 W Beulah	06	1728MST			0	0		Hail (1.00)
Campbell County 12 S Gillette	11	1904MST			0	0		Thunderstorm Wind (G52)
Campbell County 15 SE Belle Ayr	11	1910MST			0	0		Hail (1.50)
Campbell County 15 SSE Gillette	11	1924MST			0	0		Funnel Cloud
Campbell County 6 S Rozet	11	1945MST			0	0	0	Hail (1.00)
Windows were broken at a spotters home.								
Crook County Moorcroft	11	2000MST			0	0	20K	Hail (1.75)
Eighty houses had hail damage--mostly broken windows and damaged siding. Two police vehicles had moderate hail damage and another was totaled by hail.								
Crook County Moorcroft	11	2000MST			0	0		Thunderstorm Wind (G52)
Crook County 5 E Moorcroft	11	2005MST			0	0		Hail (2.00)
Crook County 15 E Moorcroft	11	2016MST			0	0		Hail (1.75)



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WYOMING, Northeast

Crook County

4 NE Sundance

28

1945MST

0

0

5K

Thunderstorm Wind

Power poles and outdoor advertising signs along Interstate 90 were blown down.